



Secondary Syringe Exchange Among Injection Drug Users

Judith Snead, Moher Downing, Jennifer Lorvick,
Barbara Garcia, Robert Thawley, Susan Kegeles, and
Brian R. Edlin

ABSTRACT *Syringe-exchange programs (SEPs) have proven to prevent the spread of bloodborne pathogens, primarily human immunodeficiency virus (HIV), among injection drug users (IDUs). In the United States, only about 7% of IDUs have access to and use SEPs. Some IDUs engage in secondary syringe exchange (SSE), meaning that one IDU (a "provider") obtains syringes at an SEP to distribute to other IDUs ("recipients"). This formative qualitative research was conducted to understand why and how IDUs engage in SSE to aid in the development of a large-scale peer HIV prevention intervention. Interviews with 47 IDUs in Oakland and Richmond, California, indicated that SSE was embedded in existing social networks, which provided natural opportunities for peer education. SSE providers reported a desire to help other IDUs as their primary motivation, while recipients reported convenience as their primary reason for using SSE. Building SSE into SEP structures can facilitate an effective provision of risk reduction supplies and information to IDUs who do not access SEPs directly.*

KEYWORDS *HIV prevention, Injection drug use, Peer intervention, Secondary syringe exchange, Social networks.*

INTRODUCTION

Syringe-exchange programs (SEPs) have been implemented in many countries to prevent the spread of bloodborne pathogens, primarily human immunodeficiency virus (HIV) and possibly hepatitis B virus (HBV) and hepatitis C virus (HCV). SEPs have dramatically attenuated the prevalence of high-risk behaviors among injection drug users (IDUs) and subsequently reduced infectious disease transmission.¹⁻⁶ Studies have found SEPs to be associated with lower prevalence of sharing syringes and paraphernalia⁷⁻¹⁴ and lower rates of HIV seroincidence.¹⁵⁻¹⁷ SEPs have also served as a means to facilitate entry into drug treatment programs¹⁸⁻²⁰ and medical, legal, and social services.²¹ In an examination of syringe-exchange effectiveness, Strathdee and Vlahov²² reported that, while the vast majority of research has found SEPs to be effective risk reduction programs, some studies have indicated that IDUs using

The authors are with the University of California, San Francisco. Ms. Snead, Ms. Lorvick, and Mr. Thawley are with the Urban Health Study, Institute for Health Policy Studies, Departments of Family and Community Medicine, and Ms. Downing, Ms. Garcia, and Dr. Kegeles are with the Center for AIDS Prevention Studies, AIDS Research Institute.

Correspondence: Moher Downing, MA, Project Director, Urban Health Study, University of California, San Francisco, 3180 18th Street, Suite 352, San Francisco, CA 94110. (E-mail: mormag@itsa.ucsf.edu)

SEPs did not obtain positive health outcomes.^{23–25} Findings of HBV and HCV transmission among IDUs using SEPs have been mixed.^{25,26}

Over one third (36%) of HIV infections in the United States are the result of injection drug use.²⁷ Currently, there are 209 SEPs operating in the United States in 36 states, the District of Columbia, and Puerto Rico.²⁸ Because of laws restricting access to syringes, SEPs cannot operate legally in many states.^{29–33} SEPs that exist—either legally or underground—are inaccessible or inconvenient to many IDUs.^{34–36}

Beginning in January 2000, California Assembly Bill 136 permitted local jurisdictions (cities and counties) to legally fund SEPs if they declared a public health state of emergency.³⁷ Subsequently, 18 California jurisdictions acted to legalize SEPs, and 6 SEPs continue to operate illegally in jurisdictions that did not declare a public health state of emergency.³⁸ In Oakland and Richmond, California, where this study was conducted, SEPs are legal under this law.

Some IDUs do not use SEPs due to fear of arrest or harassment by police.^{18,29,31,32} In California, possession of a hypodermic syringe without a prescription is illegal, as is the possession and distribution of drug paraphernalia.^{38–40} One way that IDUs work around legal barriers is secondary syringe exchange (SSE). SSE is the distribution of syringes obtained from an SEP by an IDU (“provider”) to other IDUs (“recipients”). SSE amplifies the benefits of SEPs by extending their reach to many more IDUs than come to the SEPs, thereby providing an extension of SEPs.

Research has indicated that IDUs distribute sterile syringes to other IDUs in their social networks.^{41–47} A 1996 survey in the United States found that 91% of SEPs allowed clients to exchange syringes for others; 75% of those reported encouraging the practice.⁴⁸ In 1998 in Richmond and Oakland, California, 32.5% of IDUs were conducting SSE.⁴¹ Studies in Baltimore, Maryland, have estimated that 9%–12% of IDUs exchanged for others, and that over 50% of the syringes from the SEP were actually going into the community via SSE.^{42,43} Valente and colleagues⁴² urged that IDUs who procure syringes from SEPs for other IDUs be utilized to conduct HIV prevention outreach because of their unique access to a largely hidden population of drug users.

Social factors exert a strong influence in the injection practices and sexual risk behavior of IDUs.^{41,49–53} Among IDUs, peers can play a significant role in supporting safe behaviors^{54,55} and are more able to reach diverse types of IDUs than are non-peers.⁵⁶ Since early in the acquired immunodeficiency syndrome (AIDS) epidemic, many interventions have attempted to use peers as behavior change agents to reduce the spread of HIV among IDUs.^{57–63} The Indigenous Leader Outreach Model (ILOM) employed individuals indigenous to social networks of IDUs as outreach workers.⁵⁸ A number of studies have shown the effectiveness of indigenous outreach workers in reducing risk behaviors among IDUs.^{59–61} A key feature of the ILOM is its emphasis on current IDUs becoming prevention advocates in their communities to spread risk reduction messages to peers. The success of this feature underscores the usefulness of collaboration with drug users in efforts to promote safer behaviors in that population. The work of Latkin⁶³ and colleagues has focused on recruiting IDUs recognized as popular opinion leaders likely to be influential to act as peer educators, based on the research of Kelly and colleagues.^{64,65} Many researchers have said that future efforts should involve IDUs as more active collaborators.^{57,66–68}

In Connecticut, Broadhead and colleagues⁵⁶ compared a peer-driven risk reduction intervention with a traditional provider-client model. The findings indicated that, while both were effective, the peer intervention reached a more diverse and larger IDU population. Broadhead et al. found that many IDUs were very willing

to conduct risk reduction outreach within their social networks. A study conducted in San Francisco, California, reported on the effects of an intervention for homeless youths that mobilized peer leaders to conduct SSE at a specific site accessible to the youth.⁴⁷ IDUs who utilized the SSE site reported less frequent sharing of syringes and cottons, reusing syringes, and inconsistently using condoms with casual partners than the comparison group.

SSE recipients are among the highest risk IDUs,⁴¹ and SSE providers have regular, ongoing access to this high-risk group. SSE represents an indigenous network for the distribution of risk reduction supplies. A peer intervention based on SSE would be capitalizing on existing social networks that are already organized to promote risk reduction. Most of the difficult requirements for a peer risk reduction system are already in place (such as social relationships, regular logistical contact, and a focus on risk reduction). The feasibility of such an intervention requires ascertaining certain factors, such as whether the motivation of providers is really to reduce disease incidence and whether SSE occurs in a social context that would be likely to support peer education and counseling to support risk reduction.

The purpose of this qualitative article is to describe some of the reasons why IDUs use SSE, the ways in which SSE is conducted, the relationships between SSE providers and recipients, and some implications for an HIV prevention peer education intervention to reduce risk behaviors.

METHODS

Data for this article were collected by the Urban Health Study (UHS) of the University of California, San Francisco. UHS received funding from the National Institute on Drug Abuse (NIDA) to investigate the social contexts of SSE relationships and to develop a peer health education intervention. The study protocol was approved by the University of California, San Francisco, Institutional Review Board. All research participants provided written consent. UHS staff conducted individual, in-depth, qualitative interviews with SSE providers and recipients in three San Francisco Bay area locales (Richmond, North Richmond, and West Oakland) in two cities (Richmond and Oakland) from June through December 2000.

The study communities have substandard housing, few commercial establishments (grocery stores, banks, etc.), and high levels of crime and drug trafficking. The SEPs in these neighborhoods (the Alameda County Exchange [ACE] in Oakland and ExchangeWorks in Richmond) were established by local activists over 10 years ago. They are now run by a county-funded, community-based harm reduction center and are legal by the authority of their respective local health departments.

Each SEP operates for 2 hours one night a week. In addition to exchanging syringes, these SEPs distribute other supplies necessary for risk reduction (i.e., filtering cottons, alcohol wipes, drug cookers, and biohazard containers); safer sex information and condoms; and occasionally food and vitamins. None of the three sites strictly enforces one-for-one exchange or limits the number of syringes available to IDUs.

Recruitment

Study participants ($n = 47$) were recruited in one of three ways:

1. SSE providers ($n = 26$) were recruited at the SEPs in the three study neighborhoods. SEP staff regularly collect data during each exchange by asking

each IDU for how many other people they obtained syringes. Providers were defined as IDUs who go to an SEP, obtain syringes, and distribute some or all of those syringes to two or more IDUs (recipients). SEP staff then identified potential study participants to researchers during normal SEP hours. Researchers approached eligible IDUs and asked if they wanted to participate in the study. At the end of each interview, SSE providers were asked to bring one of their recipients to be interviewed at the next scheduled SEP.

2. Recipients (n = 14) were interviewed during the next SEP.
3. Not all providers were successful in bringing in recipients. Additional recipients (n = 7) were identified from questionnaire data and recruited from an ongoing HIV testing and counseling study conducted by UHS in the SSE study neighborhoods.¹¹

Data Collection

The semistructured interviews were tape-recorded and lasted 45 minutes to 1 hour. Demographic information was collected from provider and recipient samples. Participants were compensated \$20 in cash for their time at the conclusion of the interview. Providers were paid an additional \$5 if they brought one of their recipients to the next syringe exchange.

The interview guide for providers included the following: (1) logistics of the SSE, including what supplies they distributed, how they distributed them, and how they handled used syringes; (2) who recipients were, how many people they provided syringes to, what types of relationships they had with recipients; (3) what occurred during SSE interactions, including what they did or talked about; (4) their motivations for providing syringes to other IDUs; (5) whether and how sexual relationships between providers and recipients fit into SSE; and (6) the need for health education among IDUs and their interest in becoming peer educators.

The interview guide for recipients included the following: (1) how they accessed syringes from providers; (2) who providers were and what types of relationships they had with them; (3) what occurred during SSE interactions, including what they did or talked about; (4) their reasons for using providers rather than SEPs directly; (5) whether and how sexual relationships between recipients and providers fit into SSE; and (6) the need for health education among IDUs.

Data Analysis

Interviews were transcribed verbatim, and personal names used during interviews were omitted from transcripts. Half of the interviews were randomly selected and read three or more times by senior staff to identify broad themes and generate descriptive categories. The transcripts were read and coded for the following: (1) personal history of SSE activities; (2) aspects of SSE relationships; (3) range of motivations for SSE practices; and (4) reported injection or sex-related risk practices.

Senior staff developed the coding scheme and trained research associates to code the texts. Broad code categories (e.g., motivations, types of provider-recipient relationships, logistics of conducting SSE such as where, how, and when) were directly coded in the margins of the transcripts. This inductive analytical approach is consistent with the grounded theory method used in qualitative research, but without the exacting coding protocols specified in that method.^{69,70}

Transcribed data were imported into the Center for Disease Control and Prevention's EZ-Text ethnographic database⁷¹ to facilitate subsequent analysis. Eight

transcripts were double coded by senior staff and research associates who were blind to initial coding. The reliability comparison function in EZ-Text was used to verify intercoder agreement. Senior staff corrected coding errors and then retrained coders and reviewed transcripts until coding was consistent. Provider and recipient data were not examined for convergence.

RESULTS

Of the 47 IDUs interviewed, 26 were providers, and 21 were recipients. Demographic characteristics were similar in the provider and recipient groups, aside from providers being older (Table). The majority of providers and recipients injected heroin exclusively. Some participants injected speedballs (heroin and cocaine mixture) and cocaine in addition to heroin.

TABLE. Demographic characteristics of secondary syringe-exchange providers and recipients (N = 47)

	Providers, N=26		Recipients, N=21		Total, N=47	
		%		%		%
Mean age, years	52		47			
Sex						
Male	20	77	13	62	33	70
Female	6	23	8	38	14	30
Transgender	0		2*	1	2	4*
Ethnicity						
African American	16	62	15	71	31	65
White	6	23	5	24	11	23
Latino	2	8	0	0	2	4
Native American	1	5	0	0	1	4
Other	1	5	1	5	2	4
Education						
<High school graduate	9	35	10	48	19	40
High school graduate	10	38	6	29	16	34
Some college	6	23	4	19	10	21
Bachelor's degree	1	4	1	4	2	5
Employment status						
Unemployed	17	65	14	67	31	67
Part time	5	19	6	29	11	24
Full time	4	16	1	4	5	9
Marital status						
Single	10	38	7	33	17	36
Married	5	19	4	19	9	19
Separated	0	0	4	19	4	9
Divorced	6	23	1	5	7	15
Widowed	2	8	1	5	3	6
Living as married	3	12	4	19	7	15

*Percentages exceed 100 because participants could identify in two categories. Transgender status was self-reported.

Data in this section are presented first from the providers and then from the recipients on the same topics. Generally, the data were consistent from the two groups. For example, providers' perceptions of why recipients used SSE closely matched responses from recipients, and recipients' perceptions of why providers engaged in SSE closely matched provider responses.

Case Summaries

These case summaries reflect the dominant patterns in SSE practices among participants. Following these summaries, the norms are illustrated more specifically, and deviations from the norm are reported.

Provider Charlie walks or rides his bike to the SEP that is located a few blocks from his home; he carries used syringes in his backpack. His neighborhood has mostly flat streets, and bicycling is a prime mode of transportation. He has 100 or 200 syringes and will receive sterile ones at the SEP. Most of the used syringes were bundled by recipients and given to Charlie a day or two before. Some syringes had been disposed of in his sharps container when recipients injected at his home; he carefully removed and bundled the syringes.

The SEP is open 1 day a week for 2 hours, and he makes the trip each week. He is at the SEP for 5 to 10 minutes to exchange syringes and get any injection supplies that he needs for himself and his recipients; supplies provided by the helpful staff include cookers, cottons, ties, and alcohol wipes.

He sees other IDUs he knows, but does not hang out. He goes back home and puts the new supplies in their designated spot. In the next day or two, Charlie's recipients will come by at times that are amenable to his schedule and to theirs. Most of his recipients are friends he has known for many years. They will get new syringes, cookers, cottons, and alcohol wipes in return for the used syringes they gave Charlie. The exchange is not always one for one; it may be approximate because Charlie wants to help other IDUs, and he is able to obtain the syringes he needs from the SEP. Some recipients stay, get high, and hang out with Charlie; others just pick up supplies and leave after a brief conversation. It depends on how well they know one another and how busy they are. Their conversations are usually about "everyday stuff" such as other people, sports, and where the good drugs are. Sometimes, they discuss injection safety and health issues related to HIV, hepatitis, and abscesses.

Recipient Sam has a primary provider who is a good friend. He goes to his provider's home to pick up syringes and other injection supplies; the night before, he brought his used syringes in bundles that his provider took to the SEP. The provider has everything Sam needs for injecting drugs. When Sam gets to his provider's home, they talk and spend some time together after "taking care of business." Sometimes, they get high together. Sam goes to his provider because it is more convenient than going to an SEP. They spend time together anyway, and he can go at times that fit his schedule easily. He has other SSE sources he can use on the rare occasion his provider is not available when he needs supplies.

Provider-Recipient Relationships

Most SSE providers supplied syringes to friends and family members and not to strangers or casual acquaintances. Most providers had between 2 and 10 recipients; a few had between 11 and 40 recipients. Providers most often reported having

close, long-term social relationships with recipients—many were friends or roommates, and several were family members or lovers. “We went to school together and prison together, and we’re pretty close. . . . Most [of my recipients] know each other.” “It’s not just anybody . . . just my friends . . . my sister and brother.” Some providers characterized recipients as sometimes being associates or acquaintances, but not friends. This distinction sometimes appeared to extend from a belief that it was not safe to become close with other IDUs. “I wouldn’t call ’em friends, but associates. I’ve learnt that dependence on others can set you up [for disappointment].”

Very few providers reported ever supplying syringes to strangers, and those who did said it was a rare occurrence. Some providers accepted new recipients if they were with a recipient who the provider knew well, whereas others did not allow recipients to bring any strangers into SSE interactions.

To understand the impact, if any, of ethnicity and gender on provider-recipient relationships, providers were asked to describe the ethnicity and gender of their recipients. Most providers reported that their recipients were primarily men, as were most members of their social networks. Most providers had recipients predominantly of the same ethnic group as themselves, although several providers reported having recipients of mixed ethnicities. This appeared to be an effect of existing social networks rather than reported exclusion because only two providers (one African American, one white) said they did not want to interact with people outside their ethnic group.

Most recipients reported having one provider. Among those who used two to three providers, there was a primary provider with others used for backup. Almost all recipients reported that their providers were well known to them. Most were friends, and a few were family members. “He’s been a friend for years. I trust him and he trusts me. . . . You got to make sure of what you’re doing because some people will wash ’em [used syringes] out and sell ’em as new.” Although most provider-recipient relationships were from established social networks, a few recipients went to providers from “the street” or a shooting gallery (a place where IDUs can go to buy and use drugs). One homeless recipient sometimes procured syringes from strangers on the street.

Providers and recipients were reluctant to discuss sexual behaviors in the context of SSE. None of the providers or recipients reported sexual interactions occurring as part of SSE outside relationships in which providers exchanged syringes for their steady sex partners. A few female recipients reported exchanging sex for money or drugs, but not with their providers.

Logistics of Secondary Syringe Exchange

Most providers conducted SSE out of their homes, with recipients coming to them, while a few delivered to recipients. One reported doing both. “I go back to my place, and [most] everybody’ll come by and pick theirs up. I deliver to three [recipients] that are handicapped.” Most recipients picked up syringes at the providers’ residence, and some had syringes delivered. Recipients reported having other sources for obtaining new syringes if their primary provider was unavailable. Some had a secondary provider, and a few reported occasionally going to shooting galleries or buying the syringes from people they knew on the street to supplement SSE if necessary.

Almost half the providers allowed recipients to inject drugs at their home. For some providers, the use of drugs was the primary activity of the house, and clean

syringes were provided as an additional service. For others, the provision of syringes was the priority, and recipients might also be allowed to use drugs during the exchange. Several providers did not let people inject at their home; their recipients picked up syringes and then injected elsewhere.

When recipients were asked if they used drugs at their providers' residence, many reported that they did. Some recipients injected and left immediately, others injected and stayed a while, and some did both, depending on the situation. "It depends on how many people there. I might shoot up, hang out for a few hours, and then go to work if it ain't a lot of people. Otherwise, I 'fix' [inject] and get on out."

Almost half the providers had a "doctor" (someone who gives injections to another person) on the premises. Several providers served as the doctor themselves. The practice of giving injections to others was prevalent because long-term IDUs often have vein damage that make self-injection difficult. Some providers refused to inject people because they did not want to encourage drug use or would only inject those who they had known to be IDUs, and several reported trying to discourage others from using drugs. "I stay away from doctoring; sometimes [there are] people that's just beginning to use or come out of jail, and they just starting back. I don't want to contribute to that."

Some providers required a one-for-one exchange of syringes from recipients. "I collect 'em all together and make sure they gave me what they said they gave me. I count 'em because the fella down here [at the SEP] counts 'em." Other providers preferred one-for-one exchange, but were flexible, particularly when social ties were well established. For some providers, there was no preference. Most recipients reported that SSE was not one-for-one.

Providers reported that recipients knew when and how often it was acceptable to come by the providers' homes to get supplies. All reported that their rules were respected, aside from occasionally needing to ask recipients to leave who were "hanging around when they need to get on out." While a few providers reported casual SSE practices, many described highly organized systems for storing, distributing, and disposing of syringes. Providers who had several recipients had the most structured systems.

I got a chart at home where I write down how many syringes I pass out. That's how I know it's 22 people I deal with exclusively. When they come, it's just one person at a time. They knock at the door, I give 'em what they want, and they gone.

For providers who conducted SSE where drugs were also used by a large number of people, organization was an important element. The level of organization was sometimes influenced by providers' perceptions of their legal risks. "I keep it clean so it don't look like a drug house if police come through." Some recipients noted a sense of pride among providers for keeping their SSE operations clean and running smoothly.

He has a closet with a lock on the door where he keeps the supplies. His apartment looks like people that don't use. You come in, he's at the table, brings supplies; you give him the drugs, he cooks them and draws it up, then gives it back. Both places I go to do it that way.

Injection Supplies

None of the providers had encountered a shortage of supplies at the SEPs, and they all reported that the SEP staff was able to accommodate them if they needed more supplies. Regardless of the scope of their SSE activities, most providers kept adequate supplies of syringes and other materials for personal and recipient use. Most avoided shortages by carefully monitoring their supplies or keeping more on hand than they were likely to need. In addition to syringes, every provider reported distributing other materials for risk reduction, such as cookers, cottons, ties, alcohol wipes, and condoms. A few providers occasionally ran low on supplies before returning to the SEP.

Recipients reported that providers facilitated safer injecting by providing an array of new supplies. While most said that providers had everything they needed, one recipient reported receiving only syringes and “maybe cookers now and then.” Another said that, while most supplies were plentiful, there was “not much alcohol [wipes]” available.

Most providers reported that cottons and cookers were distributed to recipients because of awareness that those items could transmit infections. “There’s no reason for everybody to be sharin’ cookers, syringes, or nothin’ . . . everything is here.” Many believe that recipients were aware of potential risks of sharing these items. However, some recipients reported sharing cookers. One reported “drawing off the same cotton . . . and I’m sharing the same cooker. . . . People don’t worry about sharing cookers.”

Biohazard Waste

Providers who allowed recipients to inject drugs during SSE had recipients deposit used syringes into a designated biohazard container (commonly referred to as a sharps container) immediately following use. Some of those containers were pharmaceutical biohazard containers obtained from an SEP, and others were makeshift containers designated for biohazard use, such as coffee cans. Most providers who did not allow syringes to be used at their home had recipients return used syringes bundled in groups of 10 secured with a rubber band. The few providers who delivered supplies collected bundles from their recipients.

Many providers reported a practice of recapping syringes after use. A few providers broke the needles off the syringes, and one bent the needles to avoid confusion between used and new syringes. Most recipients who specified how they handled “points” said they broke them following use, while some recapped syringes. One recipient reported a change in the procedure over time: “At one point, he [the provider] had people break the points, but they ended up in the carpet, so now they cap ’em, put ’em in the bucket.”

About half of the recipients injected drugs at the providers’ homes and disposed of syringes there. Most of those who did not use drugs at their providers’ homes returned syringes to providers after using them elsewhere. A few recipients disposed of syringes at their homes, and one put them in public trash receptacles, claiming that the providers did not want used syringes returned. The recipients did not say why some providers did not require used syringes to be returned.

Motivating Factors

Providers SSE usually occurred within existing social networks. Most SSE providers cited altruistic or affectional reasons for providing syringes to recipients. Provid-

ers stated that their primary motivation was to protect people from the spread of infectious disease and help their family and friends “take care of business.”

It's a blessing to help somebody. It's just like going shopping for somebody except it's free. Maybe it saves somebody's life if they know they can go somewhere and get clean needles every time they need to get down. . . . I've lost a lot of people to AIDS.

Many providers saw their role as not only helping individual friends and family members, but also performing a valuable community service. Some reported receiving positive feedback and attention from recipients and exhibited a sense of pride in their status as role models for promoting risk reduction. They perceived IDUs as members of a close-knit community that cared for one another.

A lot of guys that come [to me] to get syringes, they commend me for keeping up with it. And, shit, they wanna know why I keep up with it like that. I say, “Well, you don't go to needle exchange. Ain't you glad you know somebody like me?” He said, “You have no idea.” When a drug user need a syringe, he need a syringe.

SSE may include selling syringes obtained at an SEP to recipients in addition to actual exchanging syringes for recipients. The reported street value of syringes is \$1 to \$2. Most providers reported deriving satisfaction from their “helping” roles in their community more than economic gains. Financial remuneration was not reported to be a primary motivation. Whereas almost half of providers sometimes accepted money or drugs (“kick down”) when providing syringes, only a few actually sold them. “I get a kick down and a little money for using the house to ‘get down’ [inject drugs] . . . I don't actually charge for outfits. . . . It's not a thing where I feel like just because you come, I automatically got to receive.”

The findings indicated that, while providers reported engaging in SSE primarily to help others, there was an expectation of generalized reciprocity. Providing syringes strictly for altruistic reasons was the exception. Many providers and recipients reported an understanding of implied favors with no explicit reciprocation negotiated at the time of SSE. “We help each other. . . . I get him ‘outfits’ [syringes], and he gives me rides to the doctor when I need it.”

The few reports of direct exchange of money or drugs for syringes occurred when drugs were used at the providers' residences or when personal relationship ties were weak. In some SSE relationships, equilibrium was a goal; there was a sense that favors were eventually “evened out.” “When [recipients] come back later on, they gonna look out for me.” Other providers were content with, and took pride in, being the “giver” more often than not because of their social ties, altruistic motivations, and status. In addition to syringes, sometimes providers shared drugs with recipients.

If somebody is sick and I have some extra dope, I give it to them. I'm pretty well liked. . . . I ain't talking about nobody or disrespecting them because they don't have what I have or lucky as I am. By lucky, how lucky can you [be] to be a dope fiend? I'm a giving kinda person. I kinda make things happen and help a lotta people in need. I don't charge.

Recipients' perceptions of providers' motivations reflected what providers reported—that helping others was the primary factor. “He gets the gratification of knowing that he’s helped prevent the spread of HIV. He cares about people.”

Although some providers feared arrest, this had not prevented them from accessing SEPs and conducting SSE. Providers perceived the risk of arrest to be low because SEPs they used were legal, and police were not known to harass SEP clients. Many believed that, despite paraphernalia laws, arrest was unlikely if they were not selling drugs.

In addition to distributing syringes and other risk reduction supplies, most providers were motivated to share health education information with recipients. They described discussing a range of topics, particularly safer injection practices to prevent abscesses and infectious diseases. Sharing information provided an obvious source of satisfaction for several providers. Comments included, “I’ve given ’em a lot of information from the exchange [SEP]. I think I’ve helped a lot of people over the years,” and “It makes me feel pretty good to spread knowledge. If I can just get through to one person, that makes me feel all right.” One recipient said that his provider “tells everybody what she’s learned here [at the SEP]. She’ll just come in with a bunch of people sitting around and tell ’em and they listen.”

Recipients Most recipients reported going to an SEP at some point in the past, and none reported having a negative experience. Convenience of SSE and logistical difficulties accessing SEPs, rather than problems at SEPs, were cited as the reasons they used SSE providers. This was not surprising since most of the provider-recipient relationships developed from existing social networks that provided natural opportunities for SSE to occur.

Many recipients reported logistical difficulties getting to SEPs relating to the distance to the site, lack of transportation, and the limited hours the SEPs operated. Access was sometimes limited by employment responsibilities. “I take care of a lady and can’t get to the exchange ’cause I’ll be working when they’re open.” Some recipients lived in areas far from SEPs, and a few recipients did not know the location of the nearest SEP and had not tried to find out. Some recipients reported that the convenience of accessing sterile syringes from providers precluded the need to use an SEP, stating that they would make an effort to go if the provider did not.

Homelessness and transient housing were factors for some recipients because they did not have a safe place to store a supply of syringes. Several recipients did not want to be seen at SEPs so they could hide their drug use. Outstanding warrants, probationary status, and concerns about the SEP being watched by police led some recipients to use SSE. A few reported using SSE to keep their drug use under control because using SEPs directly required maintaining a supply of syringes at home. “If I have that [injection supplies] around all the time, I’ll end up using more, and I’m trying to keep it down low.” For recipients whose providers delivered syringes and other supplies, poor health and disability made using SSE more feasible than SEPs.

Although one provider believed that recipients did not utilize SEPs “because they’re lazy,” most providers believed that recipients did not attend SEPs because they were busy working or “doing they thing hustling.” The provider and recipient role occasionally shifted depending on circumstances that affected access to SEPs. “Since I haven’t had a car, she comes for me. I used to do it for her.”

Peer Education Intervention

In assessing the appropriateness of using SSE as a vehicle to deliver a health education message, both providers and recipients were asked if people had conversations during the exchange and, if so, what kinds of topics were discussed. We found that there are many natural opportunities for providers to educate recipients in risk reduction behaviors and influence changes in behavioral norms. "A lotta information gets thrown around [during SSE]. . . . We do exchange information, and it do get around. . . . This is a type of community where it's really word of mouth."

Recipients were open to receiving health education from their providers. "All he [provider] have to do is talk about something of that nature because I'm very interested. Anything pertaining to eliminating misery and pain. It's painful enough having this addiction. . . . Anything to maybe pacify it and enhance my mind."

When asked about interactions during SSE, most providers reported that some conversations occurred even when people were not allowed to hang out before or after the exchange. Only a few reported no conversations. This was mirrored by recipient responses. Most reported conversations during SSE interactions, and a few said none occurred. In instances when no conversations took place, participants cited concerns about police as the reason to "get on out."

When asked whether they would be interested in being trained to become peer educators, most providers expressed enthusiasm for the idea. "A class would help me a lot. Being there as a whole, collectively, that way they would all be equipped with the same knowledge." It was believed that the most natural and logical time to share information would be during the exchange. Opinions were split as to whether information would be better shared before or after drugs were injected. While responses indicated that there was no uniform best method for peer intervention, participants believed that providers would know the best approach for their recipients.

Intervention Topics

Almost all participants believed that more education was needed in their communities even though they perceived IDUs as being knowledgeable about risk reduction. Similar intervention topics were suggested by providers and recipients. About half of the participants suggested that education should focus on safer injection practices in general. Providers and recipients recounted witnessing IDUs engaging in unsafe injection behaviors on occasion, such as sharing syringes, cottons, cookers, and rinse water. "I've seen some real nasty cookers. . . . I've seen people pick a cooker off the street and take it home."

HIV and hepatitis C prevention, diagnosis, and treatment were each cited by almost half of participants as topics requiring additional education. Some questions and misunderstandings about HIV were reported. "I heard you might not get the symptoms for 15 years, and you're a carrier, and you're not a carrier, and does that show up in a blood test?" Some participants voiced confusion among hepatitis A, hepatitis B, and hepatitis C, and many expressed a strong desire to know more because hepatitis C was common among them and their peers. "People attest to know it all [about HIV and hepatitis C] but don't."

Several participants wanted education on abscess prevention and treatment. Other recommended topics were overdose prevention, safer sex, and community resources for social services, health care, and drug treatment. A few participants deferred to the expertise of UHS to select appropriate intervention topics, indicating

a high level of trust. "I would go along with whatever y'all taught me. Y'all know more about what I need to know than I do."

DISCUSSION

Harm reduction programs that operate SEPs strive to create supportive environments. Our findings suggest that SSE providers in Oakland and Richmond, California, feel supported by the SEPs in their communities. Implementing safer injection and safer sex peer interventions can build on the relationships between SEPs and IDUs to reduce risks of viral infections among those who do not use SEPs directly. Investigation of the existing social networks embedded in SSE is recommended to further develop models for disseminating peer health education. The dedication and caring as expressed by SSE providers in these communities underscores the potential for SEPs to access a hidden population of IDUs by capitalizing on the motivations of providers to conduct SSE.

Based on our findings that providers were motivated to help other IDUs (whether for reasons of altruism or moral economy), felt good about their social roles, and were enthusiastic about peer intervention, the potential is strong for successful recruitment of peer educators. SSE providers had lost loved ones to AIDS and wanted to help stop the disease from infecting others. Occasionally, the roles of provider and recipient were fluid, and some of these recipients expressed a desire to be peer educators. In addition to SSE providers, these kinds of recipients might be recruited as well to maximize interventions.

While the risks of using nonsterile syringes are well known among most IDUs, less knowledge has been demonstrated regarding risks associated with sharing cookers and cottons in these communities and others.⁷² The use and sharing of used cookers, cottons, and rinse water have been associated with increased incidence of HCV.^{73,74} Therefore, risk reduction programs need to emphasize the need for accessing and using new injection paraphernalia, such as cottons and cookers, and not only sterile syringes. Specific education needs may differ in other locations. The giving of injections also needs to be addressed in intervention design.⁷⁵ Almost half of the providers or someone on their premises gave injections to other IDUs. This practice provides extensive opportunity for blood contact, especially if the skin of either IDU is contaminated with blood and if bleeding at the needle puncture site or sites is stanced manually. Flynn and colleagues^{76,77} have videotaped numerous injection episodes and found HCV risk through injection by others prevalent even among long-time IDUs.

The legalization of SEPs and increased access to syringes may greatly reduce the incidence of viral infections among IDUs and help mitigate the social consequences of injection drug use. Strathdee and Vlahov²² recommend expanding SEP services and increasing access to alternate sources of syringes to adequately meet the demand for sterile syringes. A comprehensive approach to reducing risks of HIV, HBV, and HCV among IDUs is needed.^{77,78} Our study shows the effectiveness of SSE as an alternate source of risk reduction supplies and its potential to access hard-to-reach IDU populations. SSE provides convenient and often around-the-clock access to injection supplies that are not available with most syringe sources in the United States. Building SSE into SEP activities may facilitate the provision of risk reduction supplies and information to a wider population of recipients.

There are several ways that existing SEPs could encourage and support SSE

providers, such as probing clients to assess not only their needs, but also the needs of any other recipients of the syringes they exchange; providing small biobuckets; adopting policies that do not require a one-for-one syringe exchange; and not requiring clients to count used syringes one by one. The SEPs in this study may contribute to the success of SSE by not limiting the number of syringes available or enforcing strict one-for-one exchange. Other programs should investigate their policies to increase the availability of sterile supplies through SSE.

Further evaluation by researchers will increase our knowledge of the customs, behaviors, and impacts of SSE. Large-scale studies with SSE providers and recipients are needed to enhance understanding of the extent and effectiveness of SSE practices. The formative research presented here provides a basis for initiating such a study.

CONCLUSIONS

This study has some limitations. A limitation of the small sample is that only 20% of recipients had never been to an SEP, so SSE recipients who never attended an SEP may be underrepresented. The sample included only SSE recipients who were willing to come to an SEP and may not have included recipients who were unhappy with their providers. The findings may not be generalized to other locations. Among providers in this study, the fear of police did not present a barrier to accessing SEPs. However, the fear of police may play a greater role in hindering access to SEPs in other communities in which the sociopolitical climate differs and enforcement of paraphernalia possession laws are harsher. Another limitation is the possibility of poor recall, intoxication, and self-report bias, although research has found self-report to be very reliable among IDUs recruited outside clinical settings.⁷⁹ Because of widespread awareness among IDUs that HIV can be prevented through safer injection and safer sex practices, participants may have underreported behaviors known to be unsafe when discussing SSE logistics, such as injection practices and handling used syringes, and unsafe sexual activities. Responses may also have been influenced by sociocultural differences between participants and interviewers, such as ethnicity, class, and gender. Providers and recipients were not tracked during data collection. In future studies, tracking long-term provider-recipient relationships is recommended to understand better the impact of change.

SSE providers serve an important public health role in their communities. Our data on the nature of SSE relationships suggest that they provide extensive opportunities for providers to pass along targeted educational messages and support for risk reduction to their recipients. Among IDUs, there is a high degree of interest and motivation to learn and share information. Peer health education training would further enhance the role and status that providers have already taken on as sources of syringes and would include peer education and counseling as well. While most providers were looked up to as reliable sources of information, misconceptions based on myths and outdated information were demonstrated in some responses. Peer education intervention training would equip SSE providers with updated information and communication skills to counter these misconceptions without changing the informality and trust that exist in the SSE networks. Recognizing and supporting SSE practices can strengthen the commitment and resources of SSE providers to reduce the transmission of HIV and hepatitis virus infections.

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